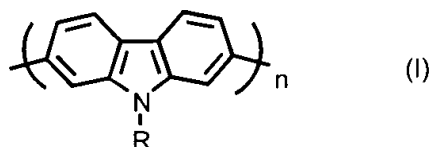


WE CLAIM:

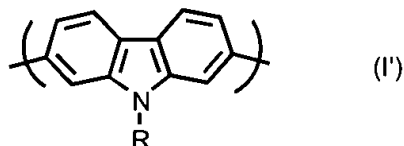
1. A conjugated poly(N-alkyl-2,7-carbazole) of formula (I):



wherein R represents a linear or branched alkyl group having 1 to 22 carbon atoms and n is an integer of about 3 to about 100.

2. A conjugated homopolymer selected from the group consisting of poly(N-octyl-2,7-carbazole) and poly(N-octadecane-2,7 carbazole).

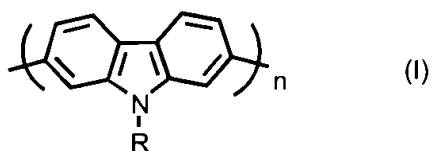
3. A conjugated polymer comprising alternating units of formula (I'):



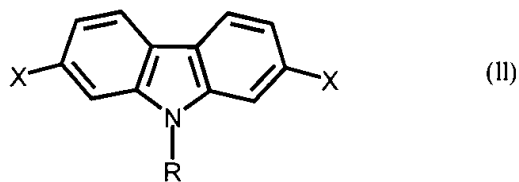
wherein R represents a linear or branched alkyl group having 1 to 22 carbon atoms.

4. A conjugated polymer selected from the group consisting of poly(N-octyl-2,7-carbazole-alt-9,9-dioctyl-2,7-fluorene), poly[N-2-ethylhexyl-2,7-carbazole-alt-5,5'-bithiophene)], poly (N-octyl-2,7-carbazole-alt-2,5-thiophene), poly (N-octyl-2,7-carbazole-alt-2,5-dioxyethylenethiophene), and poly (N-(2-ethylhexyl)-2,7-carbazole-alt-4-butyl-N,N-bis(p-phenyl)phenylamine).

5. A process for preparing a conjugated poly(N-alkyl-2,7-carbazole) of formula (I):



wherein R represents a linear or branched alkyl group having 1 to 22 carbon atoms and n is an integer of about 3 to about 100, which comprises treating a N-alkyl-2,7-difunctionalized carbazole of formula (II):



wherein R is as defined above and X represents a trifluoromethanesulfonyl group or a halogen atom selected from the group consisting of bromine, chlorine and iodine atoms, with triphenylphosphine and 2,2'-bipyridine in the presence of zinc and nickel chloride, to cause polymerization of the compound of formula (II).

6. A process according to claim 5, wherein use is made of a compound of formula (II) in which R is an octyl group and X is an iodine atom or a trifluoromethanesulfonyl group.